

The Miriam Hospital

Total Joint Replacement (Hip, Knee) Inpatient Clinical Guidelines Pre- Admission Preparation

Daily Outcomes:

- Patient is scheduled for pre-admission testing and orientation through the surgeon's office in coordination with the surgical booking office at The Miriam Hospital, 2-4 weeks prior to surgery.
- Patient completes Pre-Admission screening
- Patient Receives written Total Joint Replacement patient guide and access to online Total Joint Video link.
- Pt enrolls in AJRR and/or FORCE-TJR

Diagnostic Test

- Per Anesthesia Evidence-Based Matrix- labs ordered by PAT NP

Consults

- PCP, PRN
- Cardiology, PRN

PAT Assessments

- VS and assessment as per PAT Policy
- Complete Admission History
- Complete Medication Reconciliation
- Complete psychosocial/ SI assessment.

Treatments/Procedures

- Education re: at- home preparations
- Receives education and Chlorhexidine soap, and instructions for use both written and verbally

Patient/Family Education

- RN, NP discusses plan of care and answers patient and family questions.

Pre-Op Total Joint Orientation

- Online and in-person education class offered
- Reviews Pre-Op Preparation and Discharge Planning options
 - Home Safety Preparation
 - Personal Health Preparation
 - Pre-Op Exercise Routine
 - Pre-Op Chlorhexidine Shower
 - Increased protein intake
- Reviews In-Hospital Expectations
 - Pre-Operative Care
 - Anesthesia Options
 - Post-Operative Care
 - Preventative Measures regarding Pain, DVT, Constipation, Bladder Function, Falls
 - Expected Mobility Plan regarding Post Op Day ZERO Mobilization and subsequent therapy sessions
 - Case Management and other team members' Role in discharge planning
- Reviews Discharge Planning options
 - General Description of Discharge Options
 - Goals for Safe Discharge
 - Determining factors for safe discharge
 - Outpatient Physical Therapy description
- Multidisciplinary- RN and Rehab Service Representatives present.
- Allows patient and family time to have personal questions resolved.
- Total Joint Replacement Patient Guide- provided to all patients despite their ability to attend the orientation session.
Total Joint Hotline Information is provided to ensure access to Program manager, should questions arise

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Total Joint Replacement (Hip, Knee) Inpatient Clinical Guidelines Day of Surgery

Daily Outcomes:

- Patient is prepared for surgery using Universal Protocol safety measures; undergoes surgery using all appropriate Operating Room safety measures; and recovers from surgery under the supervision of responsible anesthesia and nursing providers, following Perioperative policies and guidelines.
- Anesthesia options are reviewed with patient and selected based on patient factors.
- Patient remains hemodynamically stable with baseline mental status
- Patient has effective pain control
- Surgical site(s) are without significant swelling & drainage
- Patient able to participate in POD0 mobilization (PT or RN) if medically able to do so.

Consults

- General Medicine, PRN
- Geriatric, PRN
- Cardiology, PRN
- Physical Therapy
- General Surgery, PRN

Assessments

- VS and physical assessment as per PACU/ Nursing Unit standard practices
- Use of CPAP per current respiratory therapy protocol
- Monitor operative site for bleeding/ swelling
- Pain and Sedation assessment and treatment as per protocol and before/ after Physical Therapy
- Case management review based on patient needs and discharge plan

Treatments/Procedures

- Monitor for adequate urine output if no Foley is present, following Total Joint Center bladder management protocol.
- C&DB and/or use incentive spirometer 10x/hr while awake, depending on patient specific factors.
- Notify MD if Temp >101.3, HR <60 or >120, SBP <90 or >160, RR <12 or >25 or <12, SatO2 <89%
- AVI Boots (Foot Pumps) or SCDs in use when patient is in bed.
- Check operative dressings for drainage
- TEDs compression stockings applied

Medications

- Anticoagulant therapy daily
- Pre-Op: Antibiotic (x1 dose) and Pre-Op Pain Medication Regimen
- IV fluids
- Post Op: Antibiotic ordered, Pain medication ordered ATC and PRN
- Post op Bowel medications as ordered
- Review and restart Home Medications as appropriate

Activity

- Patient participates in PT eval POD 0 if patient is medically stable. Goal: Ambulation in room/ to restroom. Mobilization with RN is expected if patient is stable.

Diet

- Post Op diet for first meal- Transition to Regular diet as tolerated on POD 0 (if early surgery)
- Special diet if indicated by past medical history

Patient/Family Education

- RN, NP, PT, OT, CM, MD discusses plan of care and answers patient and family questions.

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Total Joint Replacement (Hip, Knee) Inpatient Clinical Guidelines Post-Op Day 1

Daily Outcome

- Hemodynamically stable with baseline mental status
- Patient has effective pain control
- Surgical sites are without significant swelling & drainage
- IV fluids discontinued if patient tolerates po fluids
- Patient OOB in chair and ambulating with walker as tolerated with PT and with RN/Trained Aids.

Diagnostic Test

- CBC and BMP to be drawn in AM. Other labs (PT INR) as appropriate.

Consults

- General Medicine, PRN
- General Surgery, PRN
- Cardiology, PRN
- Geriatrics, PRN
- Case Management
- Occupational Therapy

Assessments

- VS and physical assessment per nursing unit protocol
- Monitor operative site for bleeding
- Assess for positive flatus/return of bowel function
- CSM checks q 8 hours
- Pain and Sedation Scales per protocol
- Assess bladder function

Treatments/Procedures

- Follow Total Joint Bladder Management Protocol
- C&DB and/or use incentive spirometer 10x/ hr while awake
- Notify MD if Temp >101.3, HR <60 or >120, SBP <90 or >160, RR<12 or >25 or <12, SatO2<89%
- AVI Boots (foot pumps) in use when patient in bed.
- Check operative dressings for drainage, follow MD order re: dressing changes
- TEDs compression stockings

Medications

- Anticoagulant therapy
- IV Fluids, in appropriate
- Pain and bowel medications as ordered, both ATC and PRN
- Anti-emetics
- Bowel Regimen
- Home Medications, if appropriate to restart

Activity

- Patient to participate 1-2x day with PT based on impairments (Goal amb hall and stairs and therex)
- Ambulation with nursing staff expected
- Occupational Therapy evaluation/ treatment if indicated
- OOB to Chair for all meals
- Dressed in home clothing

Diet

- Regular diet. (Special diet if indicated by past medical history)

Discharge Planning

- Patient and family/Significant Other discuss discharge plans with RN and CM. Discharge if goals met.
- Home Care Pathway: CM to confirm first home care visit and coordinate other needs.
- Skilled Nursing Facility Pathway: CM to assist with SNF plan and coordinate admission to selected/available facility.
- Attend discharge class (Tues-Fri) or review in 1:1 format with RN/flow RN

Patient/Family Education

- RN, PT, OT, CM, MD to discuss plan of care and answer patient and family questions.

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Total Joint Replacement Clinical Guideline References

1. Management of Osteoarthritis of the Hip. AAOS. (2017) found at: <http://www.orthoguidelines.org/topic?id=1021>
2. Management of Osteoarthritis of the Knee. AAOS. (2015) found at: <http://www.orthoguidelines.org/topic?id=1019>
(print summary)
3. Preventing Venous Thromboembolic Disease in Patients Undergoing Elective Hip and Knee Arthroplasty (2011).
Found at: <http://www.orthoguidelines.org/topic?id=1006> (print summary)
4. Management of Postoperative Pain: A clinical practice Guideline from the American Pain society, the American Society of Regional Anesthesia and Pain Medicine, and the American Society of Anesthesiologists committee on regional anesthesia. (2016) [J Pain](#). 2016 Feb;17(2):131-57. doi: 10.1016/j.jpain.2015.12.008.
5. Surgical Site Infection Prevention. NAON (2021).
6. American Association of Hip and Knee Surgeons, American Society of Regional Anesthesia and Pain Medicine, American Academy of Orthopaedic Surgeons, The Hip Society, and The Knee Society Anesthesia and Analgesia in Total Joint Arthroplasty. (Endorsed by the American Academy of Orthopaedic Surgeons) <https://www.aaos.org/globalassets/quality-and-practice-resources/external-quality-products/anesthesia-and-analgesia-in-total-joint-arthroplasty.pdf> Published June 14, 2021.)
7. American Association of Hip and Knee Surgeons, American Society of Regional Anesthesia and Pain Medicine, American Academy of Orthopaedic Surgeons, The Hip Society, and The Knee Society Anesthesia and Analgesia in Total Joint Arthroplasty. (Endorsed by the American Academy of Orthopaedic Surgeons) <https://www.aaos.org/globalassets/quality-and-practice-resources/external-quality-products/anesthesia-and-analgesia-in-total-joint-arthroplasty.pdf> Published March 23, 2020.)

Other Helpful sources of information:

1. DVT Prophylaxis:
 - a. Parvizi, J., Azzam, K., Rothman, R. (2008). Deep Venous Thrombosis Prophylaxis for Total Joint Arthroplasty: American Academy of Orthopaedic Surgeons Guidelines. *The Journal of Arthroplasty*, 23(7). doi:10.1016/j.arth.2008.06.028
 - b. Larkin, B., Mitchell, K., Petrie, K. (2012). Translating Evidence into Practice for Mechanical Venous Thromboembolism Prophylaxis. *AORN*, 96(5). <http://dx.doi.org/10.1016/j.aorn.2012.07.011>
 - c. Fillingham YA RD, Jevsevar DS, Yates AJ, Shores P, Mullen K, Bini SA, Clarke HD, Schemitsch E, Johnson RL, Memtsoudis SG, Sayeed SA, Sah AP, Della Valle CJ. The Safety of Tranexamic Acid in Total Joint Arthroplasty: A Direct Meta-Analysis. *Journal of Arthroplasty*, 2018
 - d.

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2. Pain Management:
 - a. Parvizi, J., Miller, A., Gandhi, K. (2011). Multimodal Pain Management After Total Joint Arthroplasty. *Journal of Bone and Joint Surgery*, 93. doi: 10.2106/JBJS.J.01095
3. SSI / UTI Prevention:
 - a. Smith, M., Dahlen, N. (2013) Clinical Practice Guideline Surgical Site Infection Prevention. NAON, Chicaco, IL
 - b. The Miriam Hospital. (2013). PreOperative Antiseptic Showering, Nasal Screens, and Decolonization Policy (PAT10)
 - c. The Miriam Hospital. (2013). Urinary Catheter Discontinuation Protocol and Procedure (PCS-34)
4. Post Operative Day ZERO Mobilization:
 - a. Morris, B., Benetti, M., Marro, H., Rosenthal, C. (2010). Clinical Practice Guidelines for Early Ambulation Hours after Surgery. *Orthopaedic Nursing*, 29(5). doi: 10.1097/NOR.0b013e3181ef7a5d
5. Pre-Operative Education